

In the Specification

Please amend the following paragraphs as follows.

Paragraph 50 at page 5 of the published application:

[0050]The preferred gelling agent is a polyacrylic acid having a concentration from about 0.25% to about 2% w/w or from about 0.3% to about 1% w/w of the composition. The pH of the polyacrylic acid gel is, for example, within the range of from about 5.0 to about 9.0, preferably between about 6.0 to about 8.0, and more preferably between about 6.5 to about 7.4. Polyacrylic acid polymer is also known as carbomer. A preferred polyacrylic acid polymer is sold under the trademark ~~Carbopol.TM.~~CARBOPOL™ polymer (Noveon, Inc., Cleveland, Ohio). The preferred grade of ~~Carbopol.TM.~~CARBOPOL™ carbomer is P-934, or P-980.

Paragraph 51 at page 5 of the published application:

[0051]Alternatively, the gelling agent is a polyoxyethylene-polyoxypropylene block copolymer in a concentration of from about 18% to about 35% w/w in the composition. Preferably, the concentration of the polyoxyethylene-polyoxypropylene block copolymer is from about 18% to about 25% w/w. The pH of the block copolymer gel is, for example, within the range of from about 5.0 to about 9.0, preferably between about 6.0 to about 8.0, and more preferably between about 6.5 to about 7.4. A preferred polyoxyethylene-polyoxypropylene block copolymer, also known as poloxamer, is sold under the trademark ~~Pluronic.TM.~~PLURONIC™ (BASF, Mt. Olive, N.J.) The preferred grade of ~~Pluronic.TM.~~PLURONIC™ Poloxamer is F-127 (poloxamer 407).

Paragraph 0102 at page 15 of the published application:

[0102]Plate Assay Procedure: Set the internal temperature of the Microplate Reader to 30.degree. C. and set the wavelength to 405 nm. Set up the plate template for the ~~VERSAm<sup>max</sup>.TM.~~ VERSAMAX<sup>TM</sup> plate reader in ~~SOFTmax.RTM. PRO~~SOFTMAX<sup>TM</sup> PRO. Allow 30 minutes for thermal equilibration. All solutions must be equilibrated at room temperature.

Paragraph 0103 at page 15 of the published application:

[0103]Calculations: Raw absorbance values (11 per well) are collected from each plate well at 1.0 min. intervals during the 10 min. kinetic assay. The ~~SOFTmax.RTM. PRO~~SOFTMAX<sup>TM</sup> PRO (V3.1.2) software accumulates the absorbance values and calculates a slope (rate of color development as the substrate is hydrolyzed by PPE. To convert the data to a familiar, reviewable form, it is necessary to export the raw absorbance values into ~~Excel.RTM. EXCEL<sup>TM</sup>~~, then complete all calculations using formulas embedded in the ~~Excel.RTM. EXCEL<sup>TM</sup>~~ tables. Export the raw absorbance values from ~~SOFTmax.RTM. PRO~~ SOFTMAX<sup>TM</sup> (v3.1.2) to ~~Excel.RTM. EXCEL<sup>TM</sup>~~. Calculate the rate of absorbance change (slope) in each single well for the interval 0.0 to 10.0 min. Calculate the mean rate for the triplicate runs. Calculate the % CV. Determine Cal/Chk % agreement. The rate of color generation for the PPE enzyme control must fall within 55 to 80 mAU/min. The inhibition of enzymatic activity for samples and standards should fall between 30% and 70%, which is the heart of the linear range of the assay. The interwell CV values for the PPE control, the rAAT standards and the rAAT samples must be less than 7.5%. The mean of the substrate control replicates must represent less than 1.0% of the mean of the PPE enzyme control.

Paragraph 0107 at page 16 of the published application:

[0107]Test formulations were spiked with .sup.125I alpha 1-antitrypsin prior to the experiment. Test formulations, as indicted in Table 7, are represented by batch Nos. 785-8A, 785-9A, 785-10A, 785-11A, 785-12A, 785-13A, 785-14A, 785-15A, and 785-16A. To assay the final specific activity of the spiked test formulation, approximately 10-50 mg of the formulation was weighed and dissolved in 1.0 ml of Solusol. 100 .mu.l samples were then placed in 10 ml of ~~Eeoseint.RTM.~~ ECOSCINT™ scintillation fluor (National Diagnostics #LS275) and counted in a Beckman Model LS 3801 liquid scintillation counter with a pre-calibrated quench curve for .sup.125I.

Paragraph 0109 at page 16 of the published application:

[0109]Application of Drug to Skin: The dermatomed human cadaver skin was placed on the chamber and sealed with an O-ring. The skin surface area exposed to the test formulations was 1.77 cm.sup.2. A total of 30 mg of the spiked formulation was applied to the skin surface using a Gilson ~~Microman.RTM.~~ MICROMAN™ positive displacement pipette and gently rubbed into the skin using the pipette tip. The dispensing tips were retained and counted. The mean DPM retained by the dispensing tips was calculated and subtracted from the theoretical DPM to determine the mean total DPM applied to each chamber.

Paragraph 0110 at page 16 of the published application:

[0110]Sample Collection: At 1, 6 and 24 hours a 1.0 ml sample was removed from the reservoir using a calibrated Gilson P1000 ~~Pipetteman.RTM.~~ PIPETTEMAN™ micropipette, and the volume replaced with 1.0 ml saline solution. The samples were placed in a scintillation vial containing ~~Eeoseint.RTM.~~ ECOSCINT™ scintillation fluor Rational. Diagnostics # LS-275) and equilibrated overnight in the dark before counting. At 24 hours the skin surface was washed three times with 1.0 ml 2% Oleth-20 (Croda, Inc; # 9004-98-2) in water, followed by 2 washes with 1.0 ml of 5% Span

80 in isopropanol. The wash solutions were collected for recovery counts. The dispensing tips used for the washing procedure were also counted and included in the "wash" compartment. After washing, the skin surface was wiped with 3 sequential cotton gauze cloths, which were saved for recovery counts in the "Gauze" compartment.

Paragraph 0111 beginning at page 16-17 of the published application:

[0111]Tape Stripping (Stratum corneum): The skin specimens were removed from the chamber and placed dermis side down onto a flat surface. The stratum corneum was removed by tape-stripping the skin with cellophane tape until "glistening" (approximately 22 strips) or until epidermal separation started to occur. The first two strips that remove the excess drug adhering to the outer surface of the stratum corneum were counted separately. These counts were included in total recovery (SC Surface) but excluded from stratum corneum compartment recovery. Four groups each consisting of five consecutive tape strips were placed in a scintillation vial containing ~~Seintilene-RTM~~SCINTILENE™ (Fisher # SX2-4). After tape stripping, the dermis and epidermis were separated by the microwave technique (2-5 sec.). The separated epidermis was placed in a vial containing 1 ml of Soluene 350 (Packard, Inc # 6003038), and dermis in vial containing 2 ml Soluene 350. The tissues were then digested in a 60.degree. C. oven for 4 hours. Hionic Fluor (Packard, Inc # 6013319) was added to the digested tissues, counted in a Beckman LSC and corrected for quenching.